

# Ohio Agricultural Experiment Station.

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### DEPARTMENT OF AGRONOMY.

#### SCORE CARDS FOR DENT CORN.\*

FOR USE IN THE FINAL SELECTION OF SEED EARS.

1	Adaptability.....	25
2	Seed condition.....	15
3	Shape of kernel.....	15
4	Uniformity and trueness to type.....	15
5	Weight of ear.....	10
6	Length and proportion.....	10
7	Color of grain and cob.....	5
8	Butts and tips.....	5
		<hr/> 100

#### EXPLANATORY NOTES.

1 Adaptability: Of first consideration in the selection of seed corn. Indicated by the filling out of kernels, by ripeness and by the apparent utilization of soil and climatic conditions.

2 Seed Condition. Of vast importance, for seed corn that will not grow is worse than worthless. Indicated by solidity of ear and of kernels on the ear; by brightness of color, especially of germ, and by plumpness of tip. While the germination test is the final arbiter, the trained eye can determine much.

\*As adopted by the Ohio Corn Improvement Association, Nov. 24, 1908.

3 **Shape of Kernel:** Kernels should broaden gradually from tip to crown, with edges straight so that they touch the full length, and should be wedge-shaped without coming to a point. Observed from the edge they should have uniform thickness. Thin, shrunk-en or sharp-pointed kernels are very objectionable.

4 **Uniformity and Trueness to Type:** The ears selected should be uniform in size, shape, color, indentation and size of kernel. Uniformity, or trueness to the type determined upon, is essential to progress in corn improvement. Uniformity of kernels is essential to machine planting.

5 **Weight of Ear:** To be determined by the use of scales after corn is thoroughly air dry. Many seasons this is not practical before January. Where the stand and other conditions of growth are equal, weight of ear is a good indication of productiveness.

6 **Length and Proportion:** Length will vary according to environment. No standard can be set by the score card save that set by maturity and proportion. Circumference is measured at one-third the distance from butt to tip. It should not exceed four-fifths nor fall below three-fourths the length.

7 **Color of Grain and Cob:** Grain should be free from mixture. Uncertain tints in cob and grain, and off-colored kernels are evidences of mixing. White corn should have white cobs, and yellow corn should have red cobs.

8 **Butts and Tips:** Kernels should extend in regular rows over the butt and against the shank. The shank, however, should have sufficient size to support the ear. Swelled, open or badly compressed butts, as well as those having kernels of irregular size, are objectionable.

The tips should have kernels of even size, well dented and preferably in regular rows. An under-sized ear is more objectionable with a completely capped tip than with a little bare cob. A sharply tapering tip is not desirable.

#### FOR USE IN THE PLANT SELECTION OF SEED CORN.

1	Adaptability.....	35
2	Vigor.....	25
3	Height of plant, and height and angle of ear .....	15
4	Uniformity and trueness to type.....	10
5	Weight of ear (estimated).....	15
		<hr/> 100

## EXPLANATORY NOTES.

1 **Adaptability:** Plants must be adapted to the average soil and seasonal conditions prevailing in the locality. Corn that is too late or too early in maturing, or that shows a lack of adaptability to soil conditions, should be cut accordingly.

2 **Vigor:** Indications of vigor are seen in uprightness of stalk; in a well developed stalk, leaf and ear; in freedom from disease. In marking for vigor note carefully the conditions of growth.

3 **Height of Plant and Ear:** Avoid extremes in either direction, in the case of both plant and ear. The market condition of an ear is favored if tip points downward.

4 **Uniformity:** Uniformity of plant and ear in manner of growth, height of plant and ear, etc., and conformity to the type determined upon.

5 **Weight of Ear:** While it can only be estimated at the time selections are made, yet even then it is an important point to take into consideration in selecting for high yield, if the conditions of growth are noted.

## FOR USE IN JUDGING VARIETIES OF CORN AT HUSKING TIME.

1 Bushels per acre (Uniform moisture test).....	50
2 Maturity .....	25
3 Uniformity and trueness to type .....	15
4 Color.....	10
	<u>100</u>

## EXPLANATORY NOTES.

1 **Bushels per Acre:** That which we grow corn for. Theories must give place to facts.

If impracticable to shell all of the corn, a dozen average ears of each variety may be shelled, the percent of grain determined and the total yield of grain computed therefrom.

All yields to be reduced to a uniform moisture content.

2 **Maturity:** To be determined by the actual condition of corn.

3 **Uniformity:** Uniform as to size, shape and type of ears, and marketability.

4 **Color:** An indication of purity and market quality.

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